

- 1 2. (Original) The method of claim 1, after the instruction queue is full, further comprising  
2 the step of requesting that instructions not be sent to the instruction queue.
- 1 3. (Original) The method of claim 1 wherein the step of terminating includes the step of  
2 removing the instruction from the instruction queue.
- 1 4. (Original) The method of claim 1 wherein the various processing stages include one or  
2 more of the following stages: fetching, issuing, sorting, executing, queuing, and  
3 retiring.
- 1 5. (Original) The method of claim 1 wherein the instruction capable of early retirement  
2 includes an identification tag for identifying whether the instruction is capable of  
3 early retirement.
- 1 6. (Original) The method of claim 1 wherein NO-OP instructions, pre-fetch instructions,  
2 branch instructions, nullified instructions, and predicated-false instructions are  
3 identified as instructions capable of early retirement.
- 1 7. (Canceled) The method of claim 1 wherein the criteria for early retirement are met  
2 when continued processing the instruction does not change the architectural state  
3 of the system processing the instruction.
- 1 8. (Canceled) The method of claim 1 wherein the criteria for early retirement are met  
2 when continued processing the instruction does not change the behavior of a  
3 program running the instruction.

1 9. (Currently Amended) A computer-readable medium embodying instructions that cause  
2 a computer to perform a method for retiring instructions processed through various  
3 processing stages including an instruction queue, the method comprising the steps  
4 of:  
5 after processing the instructions until the instruction queue is full;  
6 performing the following steps  
7 stopping processing the instructions in the various processing  
8 stages; and  
9 for each instruction in the instruction queue, if the instruction meets  
10 the criteria for early retirement, then  
11 terminating the instruction; and  
12 updating a system processing the instruction to  
13 reflect that the instruction has been  
14 terminated;  
15 wherein the criteria for early retirement is met when at least one of the  
16 following conditions is met: continued processing of the instruction  
17 does not change the architectural state of the system processing the  
18 instruction; continued processing of the instruction has no effect on  
19 the behavior of a program running the instruction; the instruction  
20 has completed its function without completing its full pipeline.

1 10. (Original) The computer-readable medium of claim 9 wherein the method, after the  
2 instruction queue is full, further comprising the step of requesting that instructions  
3 not be sent to the instruction queue.

- 1 11. (Original) The computer-readable medium of claim 9 wherein the step of terminating  
2 includes the step of removing the instruction from the instruction queue.
- 1 12. (Original) The computer-readable medium of claim 9 wherein the various processing  
2 stages include one or more of the following stages: fetching, issuing, sorting,  
3 executing, queuing, and retiring.
- 1 13. (Original) The computer-readable medium of claim 9 wherein the instruction capable  
2 of early retirement includes an identification tag for identifying whether the  
3 instruction is capable of early retirement.
- 1 14. (Original) The computer-readable medium of claim 9 wherein NO-OP instructions,  
2 pre-fetch instructions, branch instructions, nullified instructions, and predicated-  
3 false instructions are identified as instructions capable of early retirement.
- 1 15. (Canceled) The computer-readable medium of claim 9 wherein the criteria for early  
2 retirement are met when continued processing the instruction does not change the  
3 architectural state of the system processing the instruction.
- 1 16. (Canceled) The computer-readable medium of claim 9 wherein the criteria for early  
2 retirement are met when continued processing the instruction does not change the  
3 behavior of a program running the instruction.
- 1 17. (Currently Amended) A system for retiring instructions processed through various  
2 processing stages including an instruction queue, comprising:

first processing means ~~for processing the instructions until the instruction~~  
queue is full;

stopping means; and

second processing means;

wherein

the first processing means processes the instructions until the

instruction queue is full; and

after the instruction queue is full

the stopping means ~~for stopping~~ causes processing of the

instructions to be stopped in the various processing

stages ~~once the instruction queue is full; and~~

~~second processing means for,~~ for each instruction in the

instruction queue if the instruction meets the criteria

for early retirement, then the second processing

means causes

~~terminating~~ the instruction to be terminated; and

~~updating~~ the system to be updated to reflect that the

instruction has been terminated; the criteria

for early retirement for the instruction is met

when at least one of the following conditions

is met: continued processing of the

instruction does not change the architectural

state of the system processing the instruction;

continued processing of the instruction has

no effect on the behavior of a program

running the instruction; the instruction has

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completed its function without completing its

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full pipeline.

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18. (Original) The system of claim 17 further comprising requesting means for, after the

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instruction queue is full, requesting that instructions not be sent to the instruction

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queue.

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19. (Canceled) The system of claim 17 wherein the criteria for early retirement are met

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when continued processing the instruction does not change the architectural state

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of the system.

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20. (Canceled) The system of claim 1 wherein the criteria for early retirement are met

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when continued processing the instruction does not change the behavior of a

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program running the instruction.

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21. (New) The system of claim 17 wherein terminating the instruction includes removing

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the instruction from the instruction queue.

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22. (New) The system of claim 17 wherein the various processing stages include one or

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more of the following stages: fetching, issuing, sorting, executing, queuing, and

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retiring.

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23. (New) The system of claim 17 wherein an instruction capable of early retirement

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includes an identification tag for identifying whether that instruction is capable

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early retirement.

- 1 24. (New) The system of claim 17 wherein NO-OP instructions, pre-fetch instructions,
- 2 branch instructions, nullified instructions, and predicated-false instructions are
- 3 identified as instructions capable of early retirement.